

P, ENT COOPERATION TREAT

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE
in its capacity as elected Office

Date of mailing (day/month/year) 25 April 2001 (25.04.01)	
International application No. PCT/EP00/06234	Applicant's or agent's file reference ACD 2713.WO
International filing date (day/month/year) 03 July 2000 (03.07.00)	Priority date (day/month/year) 16 July 1999 (16.07.99)
Applicant MACDONALD, Brian, P. et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:26 January 2001 (26.01.01)☐ in a notice effecting later election filed with the International Bureau on:2. The election ☒ was☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Nestor Santesso Telephone No.: (41-22) 338.83.38
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(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
25 January 2001 (25.01.2001)

PCT

(10) International Publication Number
WO 01/05227 A1

- (51) International Patent Classification⁷: **A01N 33/12 //** (A01N 33/12, 59:16, 59:06, 59:00, 33:08, 25:30)
- (21) International Application Number: **PCT/EP00/06234**
- (22) International Filing Date: **3 July 2000 (03.07.2000)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:
99202342.4 **16 July 1999 (16.07.1999)** **EP**
- (71) Applicant (*for all designated States except US*): **AKZO NOBEL N.V. [NL/NL]; Velperweg 76, NL-6824 AB Arnhem (NL).**
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **MACDONALD, Brian, P. [NL/NL]; Nachtwachtplein 3, NL-7242 CT Lochem (NL). WORKEL, Hennie, A. [NL/NL]; Park Broekheurne 36, NL-7544 NK Enschede (NL).**
- (54) Agent: **SCHALKWIJK, Pieter, Cornelis; Akzo Nobel N.V., Intellectual Property Dept. (Dept. AIP), P.O. Box 9300, NL-6800 SB Arnhem (NL).**
- (81) Designated States (*national*): **AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.**
- (84) Designated States (*regional*): **ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).**

Published:

— *With international search report.*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **REST-BREAKING COMPOSITION AND USE THEREOF**

(57) Abstract: The invention relates to a composition useful for the breaking of rest in deciduous fruit species such as apple species and grape species comprising an organic nitrogen-containing compound having a molecular weight of 60 to 300 with the exception of urea and dinitro-ortho-cresol, an inorganic nitrate rest-breaking agent, and a surfactant. Preferably, the organic nitrogen-containing compound is a choline salt such as choline chloride, the inorganic nitrate rest-breaking agent is selected from the group consisting of potassium nitrate, calcium nitrate, ammonium nitrate, calcium ammonium nitrate, urea ammonium nitrate, zinc ammonium nitrate, and mixtures thereof, and the surfactant is an alkoxylated amine such as Armoblen[®], Armobreak[®], and Berol[®] compounds or an alkoxylated quaternary ammonium compound.

WO 01/05227 A1

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 00/06234

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A01N33/12 //(A01N33/12, 59:16, 59:06, 59:00, 33:08, 25:30)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 96 01049 A (AKZO NOBEL NV ;PARR WILLIAM JOHN ERNEST (NL); BUTSELAAR ROBERT JAN) 18 January 1996 (1996-01-18) cited in the application page 10 -page 12; table 3	1-10
Y	WO 97 24926 A (AKZO NOBEL NV ;BUTSELAAR ROBERT JAN (NL)) 17 July 1997 (1997-07-17) cited in the application page 11, line 3; tables	1-10
X	US 4 125 393 A (KOHL WILHELM ET AL) 14 November 1978 (1978-11-14) column 3, paragraph 5 column 3, paragraph 8 -column 4, paragraph 1 examples 25-28, 39, 40 claim 1	1, 5, 6
	-/-	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

4 October 2000

Date of mailing of the international search report

10/10/2000

Name and mailing address of the ISA

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Authorized officer

Bertrand, F

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 00/06234

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 658 855 A (NALEWAJA JOHN D ET AL) 19 August 1997 (1997-08-19) *ND-94-1 and ND-94-4 in tables 1 and 2* claims 1,4,12	1,5,6
X	US 4 309 205 A (KESSLER BEZALEL) 5 January 1982 (1982-01-05) cited in the application the whole document	1-10

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 00/06234

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 9601049	A	18-01-1996	AU	2926695 A	25-01-1996
			BR	9508227 A	28-10-1997
			EP	0768820 A	23-04-1997
			TR	960445 A	21-07-1996
			ZA	9505543 A	16-02-1996
WO 9724926	A	17-07-1997	AU	1308397 A	01-08-1997
US 4125393	A	14-11-1978	DE	2422173 A	27-11-1975
			AU	500251 B	17-05-1979
			AU	8097575 A	11-11-1976
			BR	7502833 A	16-03-1976
			CA	1075483 A	15-04-1980
			CA	1086975 A	07-10-1980
			CS	199267 B	31-07-1980
			DD	118269 A	20-02-1976
			HU	177253 B	28-08-1981
			JP	1175933 C	14-11-1983
			JP	50157160 A	18-12-1975
			JP	57054473 B	18-11-1982
			MX	4876 E	24-11-1982
			SU	1269732 A	07-11-1986
			ZA	7502892 A	29-12-1976
US 5658855	A	19-08-1997	CA	2186982 A	27-03-1998
US 4309205	A	05-01-1982	IL	58112 A	31-12-1981
			GB	2059412 A, B	23-04-1981
			ZA	8005258 A	26-08-1981

CLAIMS

1. A composition useful for the breaking of rest in deciduous fruit species comprising an organic nitrogen-containing compound having a molecular weight of 60 to 300 with the exception of urea and dinitro-ortho-cresol, an inorganic nitrate rest-breaking agent, and a surfactant.
5
2. A composition according to claim 1, characterized in that the organic nitrogen-containing compound is selected from the group consisting of (2-hydroxyethyl)tri(C₁-C₃)alkylammonium salts, (2-hydroxypropyl)tri(C₁-C₃)alkyl-
10 ammonium salts, and (2-hydroxybutyl)tri(C₁-C₃)-alkylammonium salts, and mixtures thereof.
3. A composition according to claim 2, characterized in that the organic
15 nitrogen-containing compound is a (2-hydroxyethyl)trimethylammonium or choline salt.
4. A composition according to claim 3, characterized in that the organic
20 nitrogen-containing compound is choline chloride.
5. A composition according to any one of claims 1-4, characterized in that the inorganic nitrate rest-breaking agent is selected from the group consisting of potassium nitrate, calcium nitrate, ammonium nitrate, calcium ammonium
25 nitrate, urea ammonium nitrate, zinc ammonium nitrate, and mixtures thereof.
6. A composition according to claim 5, characterized in that the inorganic
30 nitrate rest-breaking agent is selected from the group consisting of calcium nitrate, calcium ammonium nitrate, urea ammonium nitrate, and mixtures thereof.

7. A composition according to any one of claims 1-6, characterized in that the surfactant is an alkoxylated amine or alkoxylated quaternary ammonium compound.
- 5
8. A composition according to claim 7, characterized in that the surfactant is an alkoxylated amine.
9. Use of the composition according to any one of the preceding claims for
- 10 breaking the rest in deciduous fruit species.
10. Use according to claim 8, characterized in that the deciduous fruit species is selected from the group consisting of apple species and grape species.

PATENT COOPERATION TREATY

Nat. phase in 3? due

ROUTED: BRO Fd/s Doc!

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

Copy: Dolha Ferry
12/6

case: B

Received: - 8 JUN 2001

To:

SCHALKWIJK, Pieter, Cornelis
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P.O. Box 9300
NL-6800 SB Arnhem
PAYS-BAS

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e. 11

PCT

Intellectual Property Department

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

107237

Date of mailing
(day/month/year)

06.06.2001

Applicant's or agent's file reference
ACD 2713 WO

IMPORTANT NOTIFICATION

International application No.
PCT/EP00/06234

International filing date (day/month/year)
03/07/2000

Priority date (day/month/year)
16/07/1999

Applicant

AKZO NOBEL N.V. et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/



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D-80298 Munich
Tel. +49 89 2399 - 0 Tx: 523656 epmu d
Fax: +49 89 2399 - 4465

Authorized officer

Gallego, A

Tel. +49 89 2399-8102



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference ACD 2713 WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP00/06234	International filing date (<i>day/month/year</i>) 03/07/2000	Priority date (<i>day/month/year</i>) 16/07/1999
International Patent Classification (IPC) or national classification and IPC A01N33/12		
Applicant AKZO NOBEL N.V. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.


2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 26/01/2001	Date of completion of this report 06.06.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Bertrand, F Telephone No. +49 89 2399 8606



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP00/06234

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1-10 as originally filed

Claims, No.:

1-17 as received on 10/05/2001 with letter of 09/05/2001

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP00/06234

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:
see separate sheet

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes:	Claims	1-17
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-17
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-17
	No:	Claims	

2. Citations and explanations
see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP00/06234

Re Item I

Basis of the report

The documents mentioned in this International Preliminary Examination Report are numbered in accordance with the order they appear in the International Search Report. The amendments filed with the letter of the 09.05.2001 do not contravene Article 34(2)b PCT, as they do not introduce any subject-matter which extends beyond the application as originally filed. They are thus admissible.

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The present invention relates to a composition useful for breaking the rest in deciduous fruit species, which contains a given nitrogen-containing organic compound, an inorganic nitrate and a surfactant.

D1 and D2 disclose compositions for the same use, containing an alkoxylated amine that has surfactive properties and a MW>300 and inorganic nitrate. D3 discloses *inter alia* compositions that contain nitrates, surfactants and organic nitrogen compounds (e.g. triethanolamine and/or EDTA) (see e.g. column 11). No mention of rest-breaking can be found in D3. D4 discloses *inter alia* compositions that contain nitrates, surfactants and organic nitrogen compounds (see e.g. tables 1 and 2). No mention of rest-breaking can be found in D3. D5 discloses the use of choline salts in rest-breaking.

Examples provided in the present description show that a nitrate/choline/surfactant mixture has a better effect on bud break than a nitrate/surfactant mixture or a choline/surfactant mixture. This effect was not *a priori* expectable.

The present application therefore meets the requirements of Article 33(2)-(4) PCT, because the subject-matter of present claims 1-17 is new with respect to the prior art as defined in Rule 64(1) to (3) PCT, involves an inventive step (Rule 65(1) and (2) PCT) and is industrially applicable.

PRELIM EXAM + NATIONAL PHASE IN 10 de-
PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To:

AKZO NOBEL N.V.
 Patent Department (Dept. AIP)
 Attn. SCHALKWIJK, Pieter C.
 P.O. Box 9300
 NL-6800 SB Arnhem
 NETHERLANDS

IO nr: 7237

NOTIFICATION OF TRANSMITTAL OF
 THE INTERNATIONAL SEARCH REPORT
 OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing
 (day/month/year)

10/10/2000

Applicant's or agent's file reference

ACD 2713 WO

FOR FURTHER ACTION

See paragraphs 1 and 4 below

International application No.

PCT/EP 00/06234

International filing date
 (day/month/year)

03/07/2000

Applicant

AKZO NOBEL N.V.

1. ☒ The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

not necessary

Where? Directly to the International Bureau of WIPO
 34, chemin des Colombettes
 1211 Geneva 20, Switzerland
 Fascimile No.: (41-22) 740.14.35

Transmitted

ug321

Priority: 2000 10 10

Expiry: 2000 12 10

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within **19 months** from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within **20 months** from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the International Searching Authority



European Patent Office, P.B. 5818 Patentlaan 2
 NL-2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
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Authorized officer

Véronique Baillou

NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:
"Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:
"Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
"Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
"Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:
"Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the same time of filing the amendments with the International Bureau, also file a copy of such amendments with the International Preliminary Examining Authority (see Rule 62.2(a), first sentence).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, where upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference ACD 2713 WO	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/EP 00/ 06234	International filing date (day/month/year) 03/07/2000	(Earliest) Priority Date (day/month/year) 16/07/1999
Applicant AKZO NOBEL N.V.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of Invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☒ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 00/06234

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A01N33/12 //(A01N33/12, 59:16, 59:06, 59:00, 33:08, 25:30)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 96 01049 A (AKZO NOBEL NV ;PARR WILLIAM JOHN ERNEST (NL); BUTSELAAR ROBERT JAN) 18 January 1996 (1996-01-18) cited in the application page 10 -page 12; table 3 ----	1-10
Y	WO 97 24926 A (AKZO NOBEL NV ;BUTSELAAR ROBERT JAN (NL)) 17 July 1997 (1997-07-17) cited in the application page 11, line 3; tables ----	1-10
X	US 4 125 393 A (KOHL WILHELM ET AL) 14 November 1978 (1978-11-14) column 3, paragraph 5 column 3, paragraph 8 -column 4, paragraph 1 examples 25-28,39,40 claim 1 ----- -/--	1,5,6

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

4 October 2000

Date of mailing of the international search report

10/10/2000

Name and mailing address of the ISA

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Authorized officer

Bertrand, F

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 00/06234

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 658 855 A (NALEWAJA JOHN D ET AL) 19 August 1997 (1997-08-19) *ND-94-1 and ND-94-4 in tables 1 and 2* claims 1,4,12 ---	1,5,6
X	US 4 309 205 A (KESSLER BEZALEL) 5 January 1982 (1982-01-05) cited in the application the whole document -----	1-10

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 00/06234

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WO 9601049	A	18-01-1996	AU 2926695 A	25-01-1996
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			ZA 8005258 A	26-08-1981